REMARKS/ARGUMENTS

Independent claims 1, 6, 10 and 14 remain pending in the present application, dependent claims 5 and 9 having previously been cancelled, and dependent claims 2-4, 7, 8, 11-13 and 15 having been cancelled in the present amendments in view of their limitations having been incorporated into their respective independent claims.

Rejections under 35 U.S.C. §§102(b) and 103(a) in view of Christiani and Barriac

In the November 19, 2003 Office Action, claims 1-4 and 10-13 were rejected under 35 U.S.C. §102(b) as being anticipated by or, in the alternative, under 35 U.S.C. §103(a) for obviousness in view of the combination of Christiani et al. U.S. Patent No. 5,747,560 with Barriac U.S. Patent No. 4,721,221. Claims 6-8, 14 and 15 were also separately rejected under 35 U.S.C. §§102(b) and 103(a) in view of Christiani and Barriac. Applicant submits that Christiani, either alone or in combination with Barriac, cannot anticipate or render obvious any of claims 1, 6, 10 and 14 because those references contain no disclosure or suggestion of a ***gas impermeable sealant layer*** for a beverage container closure, in which the sealant layer is molded from a melt-processible composition that includes: (a) a polyolefin or base polymeric material selected from the specified groups and (b) layered montmorillonite clay having platelets with a diameter of approximately 1 micron, and in which the layered montmorillonite clay renders the sealant layer substantially gas impermeable.

As acknowledged in the Office Action, Christiani does not itself teach or suggest:

(1) a beverage container closure, or a sealant layer therefor, that is molded from a melt-processible composition that includes a thermoplastic base polymeric material and layered magnesium aluminum silicate clay (montmorillonite clay, for example) having platelets with a diameter of approximately 1 micron; or

(2) a method of decreasing gas permeability of a beverage container closure, or a sealant layer therefor, that includes a thermoplastic material, in which layered magnesium aluminum silicate clay is introduced to the material.

Thus, absent a disclosure of a beverage container closure sealant layer composition that meets all of the limitations recited in the applicant' claims 1, 6, 10 and 14, Christiani alone cannot anticipate any of claims, even with Barriac's inherency evidence as to beverage container closures being molded articles made by thermoplastic polymers.

Barriac describes a molded plastic closure with a sealing liner that is preferably molded from a hard, dimensionally stable thermoplastic material, such as high density polyethylene or polypropylene (*see* column 4, lines 15-18). Barriac nowhere discloses or suggests the use of any material for a beverage container closure other than a hard, dimensionally stable thermoplastic material. In this regard, Barriac nowhere discloses or suggests that a composition like Christiani's, which includes a thermoplastic base polymeric material and layered magnesium aluminum silicate clay having platelets with a diameter of approximately 1 micron, should, or even could, be formed into a sealant layer for a beverage container closure that would ***necessarily*** exhibit gas impermeability due to the presence of layered montmorillonite clay.

Applicant submits that Barriac, as well as any of the other references of record in the present application, provides no factual or legal basis to support a determination that Christiani's composition is moldable to form a beverage container closure sealant layer that is ***necessarily*** gas impermeable. As set forth in the Manual of Patent Examining Procedure:

> To serve as an anticipation when the reference is silent about the asserted inherent characteristic, such gap in the reference may be filled with recourse to extrinsic evidence. ***Such evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference***, and that it would be so recognized by persons of ordinary skill.

Manual of Patent Examining Procedure, section 2131.01 (8th Ed., Feb. 2003) (quoting *Continental Can Co. v. Monsanto Co.*, 948 F.2d 1264, 1268 (Fed. Cir. 1991); emphasis added). In fact, Barriac contains no teaching or suggestion at all as to the gas permeability of its disclosed compositions.

Christiani teaches away from gas impermeability. At column 3, lines 52-54, Christiani states:

> Nanoscale barrier layers impart ***lower permeability to polymers*** than do comparable loadings of conventional barrier fillers.

Later, at column 24, lines 22-32, Christiani further states:

> The molding compositions according to the invention are outstandingly suitable for specific applications of all types since their spectrum of properties can be modified in the

desired direction in manifold ways. Such molded products of this invention will derive one or more advantages over products molded with polymers having no nanodispersed platelet particles including increased modulus, stiffness, wet strength, dimensional stability, and heat deflection temperature, and ***decreased*** moisture absorption, flammability, ***permeability***, and molding cycle time.

Christiani's composition thus exhibits at least ***some*** permeability to polymers. If a composition is permeable to polymers, which are high molecular weight macromolecules, then the composition is ***necessarily*** permeable to gases as well, since gases have even lower atomic and molecular weights than polymers. Since Christiani does not, and cannot, meet all of the limitations of the applicant's claims 1, 6, 10 and 14, and in fact ***teaches away*** from the applicant's gas impermeability limitation, Christiani cannot anticipate or render those claims obvious, either alone or in combination with Barriac.

Rejections under 35 U.S.C. §§102(b) and 103(a)
in view of the '499 Publication and Fuchs or Barriac

Claims 1, 4, 10 and 13 were rejected in the November 19, 2003 Office Action under 35 U.S.C. §102(b) as being anticipated by or, in the alternative, under 35 U.S.C. §103(a) for obviousness in view of the combination of International Publication No. WO 98/29499 ("the '499 publication") with Fuchs U.S. Patent No. 4,749,094. Claims 6-8, 14 and 15 were also separately rejected under 35 U.S.C. §§102(b) and 103(a) in view of the '499 publication and Barriac. As with Christiani with Barriac, applicant submits that the '499 publication, either

alone or in combination with Fuchs, cannot anticipate or render obvious any of claims 1 and 10 (claims 4 and 13 have been cancelled). Similarly, the '499 publication, either alone or in combination with Barriac, cannot anticipate or render obvious any of claims 6 and 14 (claims 7, 8 and 15 have been cancelled). In this regard, like Christiani and Barriac, the '499 publication and Fuchs contain no disclosure or suggestion of a ***gas impermeable sealant layer*** for a beverage container closure, in which the sealant layer is molded from a melt-processible composition that includes (a) a polyolefin or base polymeric material selected from the specified groups and (b) layered montmorillonite clay having platelets with a diameter of approximately 1 micron, and in which the layered montmorillonite clay renders the sealant layer substantially gas impermeable.

As acknowledged in the Office Action, the '499 publication does not itself teach or suggest: (1) a beverage container closure, or a sealant layer therefor, that meets all of the applicant's claim limitations. Even with Fuch's inherency evidence, however, the '499 publication alone cannot anticipate any of claims.

Fuchs describes a molded plastic tampering-indicating closure and apparatus for manufacturing the closure. Fuchs states that his molded closure "may be readily and relatively inexpensively mass-produced from known compositions of rigid thermoplastic materials, the principal ingredient of which is a material such as high density polyethylene, polypropylene, or polyethylene terephthalate" (column 4, lines 22-27). Fuchs nowhere discloses or suggests the use of any material for a beverage container closure other than a high density polyethylene, polypropylene, or polyethylene terephthalate. In this regard, Fuchs nowhere discloses or suggests that a composition like that of the '499 publication, which includes a thermoplastic base polymeric material and layered magnesium

aluminum silicate clay having platelets with a diameter of approximately 1 micron, should, or even could, be formed into a sealant layer for a beverage container closure that would ***necessarily*** exhibit gas impermeability due to the presence of layered montmorillonite clay.

Applicant submits that Fuchs provides no factual or legal basis to support a determination that the composition of the '499 publication is moldable to form a beverage container closure sealant layer that is ***necessarily*** gas impermeable. In fact, Fuchs, like Barriac, contains no teaching or suggestion at all as to the gas permeability of its disclosed compositions.

Like Christiani, the '499 publication also teaches away from gas impermeability. At page 19, lines 22-26, the '499 publication states:

> Containers of the present invention display gas ***permeabilities (oxygen, carbon dioxide, water vapor) 15% to 90% lower*** (depending on platelet particle concentration) than that of similar containers made from neat (clay-free) polyester, resulting in correspondingly longer product shelf life provided by the container.

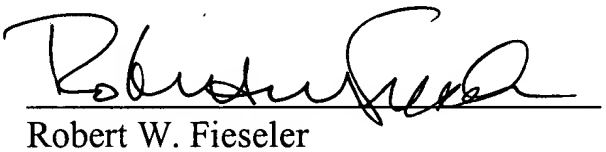
The '499 publication's composition thus exhibits at least ***some*** permeability to polymers and, like Christiani, must ***necessarily*** be permeable to gases as well. Since the '499 publication does not, and cannot, meet all of the limitations of the applicant's claims 1, 6, 10 and 14, and in fact ***teaches away*** from the applicant's gas impermeability limitation, the '499 publication cannot anticipate or render those claims obvious, either alone or in combination with Fuchs or Barriac.

* * * * *

In view of the foregoing remarks, applicant submits that claims 1, 6, 10 and 14 are allowable. The Examiner is invited to telephone the applicant's undersigned attorney at (312) 775-8123 if any unresolved matters remain.

A Petition for Three-Month Extension of Time accompanies this Amendment and Request for Reconsideration, along with a check to cover the fee for extension within the third month. Please charge any additional fees, and credit any overpayment, incurred in connection with this submission to Deposit Account No. 13-0017.

Respectfully submitted,



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